# The context, dynamics and planning of urban development: a collection of papers

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# The Interrelationship of Planning, Participation and ICT:

## The Case of Developing a Curriculum in Agia Varvara, Athens, Greece

Alex Deffner and Vassilis Bourdakis

#### **Abstract**

One of the main problems in recent urban planning is how to make very broad and commonly used theoretical, and interrelated, principles such as sustainability and governance more practical. The main aim of this paper is to demonstrate how one of the main issues of urban governance, i.e. public participation in planning, can be helped through the use of new technologies. The data are provided by the PICT (Planning Inclusion of Clients through *e*-training) project, which was a three-year (2002-5) pilot project co-funded by the Leonardo da Vinci Programme of the European Commission.

The main aim of the project was to encourage and facilitate effective public participation in planning by providing the necessary skills to planners and the public to communicate with each other and by developing the appropriate tools that would make such communication meaningful. The project addresses all participants in the planning process, the key objectives being to introduce key IT (Information Technology) skills, fight technophobia and disbelief, improve communication skills, acquire an understanding of the built environment and spatial representations and, finally, introduce game-like activities to implement VR (virtual reality) support tools. The PICT partners came from the UK, Greece, Belgium and Hungary. The Project Contractor was Knowsley Metropolitan Borough Council (UK) and the Project Coordinator was the PRISMA Centre for Development Studies (Greece).

The paper focuses on the curriculum developed for the Municipality of Agia Varvara, which lies to the west of the City of Athens. The developed curriculum consists of three parts: a common "core" part that is shared by both planners and the public, and two distinct parts: one addressing the public and the other the planners. Each part consists of several modules, to cater for different learning levels, abilities and interests. The struc-

ture is flexible and the whole idea was to have a curriculum with a scientific and not a "journalistic" basis, that could at the same time be simple, but not simplistic.

**Keywords:** Sustainability, governance, virtual reality, PICT Leonardo project, Agia Varvara / Athens / Greece, urban planning, public participation, information communication technologies.

#### 1. Introduction

One of the main problems in recent urban planning is how to make very broad and commonly used theoretical, and interrelated, principles such as sustainability and governance more practical. The main aim of this paper is to demonstrate how one of the main issues of urban governance, i.e. public participation in planning, can be helped through the use of new technologies.

The data are provided by the *PICT* (Planning Inclusion of Clients through *e*-training) project, which was a three-year (2002-5) pilot project co-funded by the Leonardo da Vinci Programme of the European Commission. The paper focuses on the curriculum developed for the Municipality of Agia Varvara, which lies to the west of the City of Athens. It has a population of approximately 30,500 people, with a multicultural identity and high unemployment rates.

### 2. Sustainability in Urban Planning

Sustainable development in planning has three main dimensions: society, economy and environment. A key question that must be addressed is the following: is urban sustainability a contradiction in terms? (Girardet, 1999: ch. 1). The starting point in answering this question is the provision of a successful definition of a sustainable city, which is, according to Girardet (1999: 13): "organised so as to enable all its citizens to meet their own needs and to enhance their well-being without damaging the natural world or endangering the living conditions of other people now or in the future". Another useful definition (a "second degree" one) is that by Richard Rogers (1997: 169), who claims that the sustainable city is a just city, a beautiful city, a creative city, an ecological city, a city of easy contact and mobility, a compact and polycentric city, a diverse city. According to Kevin Lynch (1972: 115-6), sustainability is "future preservation" involving actions ethically or aesthetically internalised, so that they become satisfying things to do now:

"as historical preservation requires the disposal of the irrelevant past, so future preservation requires the elimination of the irrelevant future".

It must be ensured that the use of resources does not diminish the living environment. Reference must also be made to urban best practice initiatives, to principles and policies (people's needs must be addressed as a starting point, a checklist of key questions must be made), to the culture of sustainability and to the Local Agenda 21.

An example of best practice initiatives is a substantial body of material compiled by the International Council for Local Environment Initiatives (ICLEI) and disseminated through their own worldwide communication channels:

- improved production/consumption cycles
- gender and social diversity
- innovative use of technology
- environmental protection and restoration
- · improved transport and communication
- participatory governance and planning
- self-help development techniques (Girardet, 2004: 259-60).

In any case, initiatives on sustainable development have to start with *city* peoples' own needs, which include:

- · clean air and water, healthy food, good housing
- quality education, vibrant culture, good health care, satisfying employment or occupation
- safety in public spaces, equal opportunities, supportive relationships, freedom of expression
- meeting the special requirements of the young, the old and the disabled (Girardet, 1999: 62).

To help cities to develop and implement viable sustainability policies, key questions have to be asked:

Does my city-

- compile an annual environmental report?
- use life cycle analysis in its own purchasing decisions?
- support public environmental education?
- create jobs for environmental regeneration?
- have polices for transport integration and pedestrianisation?

- encourage ecological businesses?
- support ecological architecture and urban villages? (Girardet, 1999: 67).

In order to bring about the reconciliation between cities, their people and nature there is a need for developing *concepts of real sustainability*. These efforts need to:

- involve the whole person
- place long term stewardship above short-term satisfaction
- · ensure justice and fairness informed by civic responsibility
- · identify the appropriate scale of viable human activities
- encourage diversity within the unity of a given community
- develop precautionary principles, anticipating the effects of our actions (Girardet, 1999: 71).

A significant tool for sustainability has proven to be Local Agenda 21 a product of the 1992 Rio Earth Summit (UNCED) that has been endorsed by 150 nations. It is a continuing process of developing local policies for sustainable development and building partnerships between local authorities and other sectors to implement them. Its goal is integrative, seeking to break down barriers between sectors in both public and private life. There has been a range of practised methods: traditional consultation on draft plans, public meetings, bringing together of representatives from different interests, round tables, focus groups. A crucial factor is the sustainability indicator, i.e. asking people to identify specific measurable aspects, parts of their living environment which, to them, indicate their health (Raemaekers, 2000: 40-1). The support mechanism is not set out by Local Agenda 21, but local authorities have been leaders among governments in addressing sustainability issues (even before the adoption of LA 21) [Gilbert et al., 1996: 16]. LA 21 has a much wider remit than the statutory planning system: it is very much bottom-up, community-based process and much more related to an overall improvement in quality of life and offers an opportunity to take radical and innovative action (Macdonald and Heaney, 1999: 41-2).

## 3. Community Planning

In the process of community planning, the importance of local economic development is reflected in a type of "new localism": from outward- to inward-looking societies (Williams, 1999). The aim is to develop a sense

of integrated local development (housing AND public space AND social-economic background).

Community planning could include a comprehensive plan (Kelly and Becker, 2000) and should primarily focus on the needs of particular groups. Examples in the case study of Agia Varvara (see Section 6) are the elderly and the Roma: the first, along with housewives, were willing to participate in the PICT project but are IT (Information Technology) illiterate - on the other hand, young people are IT literate, but they did not seem willing to participate in the research.

The main principles of community planning are the following:

- agree to the rules and boundaries
- be visionary yet realistic
- build local capacity
- encourage collaboration
- have fun
- learn from others
- have personal motivation and take initiatives
- respect the cultural context of others
- be receptive to training
- visualisation of result (Wates, 2000: 11-21).

#### 4. Urban Governance

The term government is confined to the formal structure of representatives and officials established to coordinate and oversee this function, while the term governance refers to the process of government and, more broadly, to the ways in which a society manages its collective interests. It includes functions that may be helped by government actions: strengthening institutions for collective decision-making, facilitating and forming partnerships designed to secure collective goals, ensuring the fair expression and adequate arbitration of a range of interests (Gilbert *et al.*, 1996: 16). The revitalisation of local government towards the direction of governance is a cornerstone of city recovery but it needs to be done from the bottom up: from the neighbourhood, where people know what is going on, to the city where politicians, businesses and civic bodies link up. Rotterdam and Spanish cities function as characteristic examples (Rogers and Power, 2000: 264-5).

The *importance of governance to sustainability* is located in the following factors: promotion and practice of sustainable resource use; regulation of the demand for and supply of land; provision of appropriate infrastructure; attraction of suitable investment; and the encouragement of partnerships. The slogan "think locally in order to act globally" reflects the importance Agenda 21 attaches to local strategies and actions in the resolution of global environmental problems (Gilbert *et al.*, 1996: 17-8).

Greece continues to rely on formal mechanisms of administration. The actual role of the private sector and civic society has to be invented. As far as the third sector is concerned, the non-governmental organisations are under-represented, and in most cases they constitute a one man/woman show - the public sector is unable to press the state and vice versa (Coccossis *et al.*, 2003).

The role of local governments in the urban environment:

- they are the only bodies with the mandate, responsibility and potential to represent and act for the different and often conflicting interests
- although they are the bodies with the greatest potential to take integrated approaches to the environmental and social challenges of urban areas, they often have neither the legitimacy nor the capacity
- even if this happens, there will be effective action only if it involves leadership of elected officials and participatory and inclusive style of governing
- for most issues of urban sustainability, they should work with partners, other local governments and international networks (Gilbert *et al.*, 1996).

## 5. Participation in Urban Planning

One of the main issues of urban governance is participation in planning. There are different views of participation depending on the degree of involvement of the experts and the criteria for representing the public. Although there is lack of experience of participation, and consequently of participatory culture in Greece, Agia Varvara has demonstrated participatory experiences in the past.

A useful "schema of public participation" is that by Hampton, which aims at the relationship of specific techniques to subsidiary objectives in public

participation. There are two major objectives behind the introduction of greater public participation in planning during the late 1960s: policy-making and decisions can benefit from better information about public preferences and residents' concerns; and public participation can draw people into a stronger and longer-term relationship with government and enhance their current and future ability to play a significant role in policy-making (Hampton, 1977 cited in Darke, 2000: 391-2).

The *involved groups* are distinguished in: major elites (e.g. local business groups, major employers, Chambers of Commerce, trade unions), minor elites (local interest groups, community associations, action groups, and public as a collection of individuals (Hampton, 1977 cited in Darke, 2000: 392).

The existence of *equal opportunities* constitutes one of the important conditions for success within local authorities, and, according to the Equal Opportunities Guide some of the relative factors are:

- race
- women
- disabled
- elderly
- children
- part-time and casual workers (Brennan/LGMB, 1991 cited in Darke, 2000: 409).

The key principles for good practice in public participation are the following:

- · clear aims of participation at the outset;
- insurances of the central role of local politicians at the programme;
- link of motives, objectives and intentions of the participation programme with the appropriate techniques;
- interpretation of the nature and implications of policies and plans for the users;
- identification of the procedures for information collection from the public in order to evaluate and act (Alty and Darke 1987, cited in Darke, 2000: 410).

### 6. The Good Functioning of Cities

According to the Charter of Athens, there are four main urban planning functions: housing, work, leisure, and transport (Le Corbusier, 1943/1987). "Making the cities work" is directly related to these functions and depends on *best practice examples* of:

- arriving in the city (transport): most successful gateways and transport interchanges, first (and lasting) impressions really count, cities are not just places where people live, but they are destinations that many people visit for brief period
- getting around the city (transport): a great challenge for most urban leaders: how to move people around in safety, comfort and speed, acute political trade-offs: pedestrian vs car, pollution vs clean air, communities vs roads, a matter not only of huge public investment, but also of ideas and good operating practices
- enjoying the city (leisure): ingenious approaches that are taken to parks, shopping malls and public spaces, large number of (usually) small-scale amenities that make a city fun to be in (Hazel and Parry, 2004: 24-183).
- working in the city (work)
- living in the city (housing).

Venice is a classic case study (even though few other, if any, cities have canals), since its working principles can be applied to modern day cities (Hazel and Parry, 2004: 17-23).

The main lessons learned are:

- cities have to find a solution to the car (road space has to be rationed since it is not a free public good)
- even the most spectacular developments have to be on a human scale
- information is the key
- it is people (often one individual) that make things happen.

It is a cumulative effect of visionary ideas, sometimes small, that make cities work (Hazel and Parry, 2004: 187).

## 7. The Case Study of Agia Varvara, Athens, Greece in the Framework of the Leonardo Project PICT

The data are provided by the *PICT* (Planning Inclusion of Clients through *e*-training) project which was a three-year (2002-5) pilot project co-funded by the Leonardo da Vinci Programme of the European Commission. The main aim of the project was to encourage and facilitate effective public participation in planning by providing the necessary skills to planners and the public to communicate with each other and by developing the appropriate tools that would make such communication meaningful. The project addresses all participants in the planning process, the key objectives being to introduce key IT skills, fight technophobia and disbelief, improve communication skills, acquire an understanding of the built environment and spatial representations, and finally introduce game-like activities to implement VR (virtual reality) support tools. The PICT partners are:

- Knowsley Metropolitan Borough Council (Project Contractor), Liverpool John Moores University, School of the Built Environment, and the European Council of Town Planners (ECTP) from the UK;
- PRISMA Centre for Development Studies (Project Coordinator), the Municipality of Agia Varvara in the Prefecture of Athens, and the University of Thessaly from Greece;
- Hogeschool voor Wetenschap & Kunst Sint Lucas Architectuur from Belgium, and
- Budapest University of Technology and Economics, and WEBhu Kft. ICT Consultancy from Hungary.

Agia Varvara is a south-west Athens municipality, with 30,500 inhabitants in 22Ha, with 62 urban blocks, 2163 buildings and 31 refugee apartment buildings (from the 1960's) accommodating 580 families. Its main urban problems are lack of free space and problems in accessing communal space.

The population includes 15% Roma, refugees/immigrants from the Black Sea and economic immigrants. The population is aging, with many single parent and elderly households. The area is a low income one, with half of the households below EC poverty line. Illiteracy is approaching 50%, with the current school drop-out rate at 21%. Unemployment is running at 24%, with half of it long term.

The proposed *urban interventions* in Agia Varvara belong to the following four categories:

- I. Urban regeneration
  - Two squares
  - A small park
  - Improve pedestrian movement and lighting
  - Construction of a playground
  - Street elevations of private buildings
- II. Social Services
  - Kindergarten
  - Creative activity centres for children
- III. Cultural infrastructure
- IV. Training, support services

## 8. The Developed Curriculum

The developed curriculum in Agia Varvara in the framework of the Leonardo project PICT consists of three parts: a "core" part that is shared by both planners and the public, and two distinct parts: one addressing the public and the other the planners. Each part consists of several modules (separated into various units), to cater for different learning levels, abilities and interests guided by the needs survey. A special target group addressed in Agia Varvara was that of pupils.

The structure is flexible, and, although the written text seems "rigid" using an austere language, it functioned only as a basis for the oral presentations which were more "free" and using everyday language. The whole idea was to have a curriculum with a scientific and not a "journalistic" basis, that could at the same time be simple, but not simplistic.

The attribute of flexibility is also expressed in the fact that the themes were developed in such a way as to allow members of the public to follow some sections of the curriculum addressed to the planners, and also planners to "look back" at some sections of the curriculum addressed to the public.

During curriculum development, the project team members consulted with the Local Consultative Committee to ensure relevance and acceptance of the learning approach. The main tools used are power point slides and practice in PCs. A main aim was to include in the slides many pictures of real international (mostly well-known) examples, especially with regard to addressing the public.

As far as *ICT* (Information Communication Technologies) is concerned, the structure enables the custom creation of teaching modules for taught courses. The VR tool produced is sufficiently accurate, relatively efficient in the time spent developing and hence cheap to produce and modify, and it provides a high density of visual information to the viewer/visitor. The ability of each user to interact with the model, switch between alternatives (existing and proposed) and, most importantly, add textual comments (direct or mediated) to particular points within the model is enhancing communication, creating a pseudo-multi-user environment without the extra complexity, resources and problems involved. The proposals and comments are summed up and presented to the experts who should act accordingly, decide what can and should be satisfied and feed back to the designers and the public.

The main sections in the curricula modules refer to planning, participation, and ICT. Additionally, the common *core part* has an introductory module which refers to general issues concerning the PICT programme. In total, it has four teaching modules: Introduction to PICT, Planning, Participation, Methods and techniques of ICT. The thematic emphasis is put on sustainability. As far as ICT is concerned, the reason for including a common core part is that addressing older planners may not be at all different, in terms of ICT skills needed, from addressing similarly aged members of the public.

The public's part (which is the largest one) has five teaching modules in total: Introductory Themes to Urban Planning, Participation, "Key skills" in ICT, GIS, Virtual Reality. The various "key skills" for the less-educated members are necessary before embarking in any substantive learning on the subject of public involvement in planning. This is in accordance with the project aim of empowering local communities. The thematic emphasis is put on "making cities work", a section which includes many pictures of real international examples. As far as ICT is concerned, the emphasis is on understanding information presented, photomontages, drawings, renderings, video and, most important, the ability to interact with VR models.

The planners' part (which is the smallest one) has five teaching modules in total: Advanced Themes in Urban Planning, Participation, GIS, CAD and Virtual Reality. There is no particular thematic emphasis. As far as ICT

is concerned, the focus is on operating the various ICT tools, in terms of building new environments, 3D data formatting, converting, translating information from different platforms, etc.

#### 9. Conclusions

The principle of sustainability in urban planning can be made more practical through the implementation of community planning. The principle of governance in urban planning can be made more practical through the implementation of participation. Thus, sustainability and governance are interrelated through community planning and participation, leading to "making cities work".

The process of developing a flexible three-part (common core, public planners) curriculum in the case of Agia Varvara (Athens, Greece) in the framework of the Leonardo project PICT showed that ICTs can help in participation, mainly because they constitute a relatively simple means of recording the views of both the public and the planners in a variety of subjects (both "open" and "closed").

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